REMARKS

We have carefully considered the Office Action dated September 23, 2004, in which the pending independent claims are rejected over a combination of the Johnson and Billington patents and the dependent claims are rejected over the combination further combined with various other patents. We thank the Examiner and his supervisor for a telephone interview in which the claims and various changes thereto were discussed. In response to the Examiner's comments, we propose to amend independent claims 41 and 62 to more particularly point out that the operations performed by the center after receiving an alarm or warning message, that is, the second level of analysis to determine if other or more actions are required, are performed in accordance with the immediacy indicated by the classification of respective messages as alarm (immediate attention) or warning (later attention) messages. We also propose amending various dependent claims to correct antecedent basis and dependency problems. Further, we have corrected the wording problems noted in a January 10, 2005 Advisory Action.

We contend that the cited combination of the Johnson and Billington references does not teach or suggest the current system as set forth in the independent claims, as amended. We discuss the current system and the combination of the teachings of the Johnson and Billington references below in more detail.

As we pointed out in a prior response, the current system includes **two levels of analysis** – a first level that produces warning and alarm messages, and a second level that uses the warning and alarm message information and involves a further, more in-depth, analysis to determine if one or more of the monitored appliances in a given household requires other or more attention than is indicated by the results of the first level of analysis. As discussed in more detail below, the inclusion of the two different levels of analysis provides particular benefits in terms of functionality and also in terms of reduced complexity of the system components.

The first level of analysis establishes, among other things, the urgency or immediacy with which the center is to perform its second level of analysis of the messages and related functional data provided to the center. Relying on the first level

determination that a message relates to an alarm condition, for example, the center schedules an immediate more in-depth analysis of the functional, historical and statistical data associated with a particular appliance and with other appliances within the same household. If the message is instead a warning message, the center may schedule the more in-depth analysis at a time that is more convenient for the operations of the center.

The center can thus use the warning and alarm classifications to prioritize the second-level analysis operations, without adversely affecting the system's operations to avoid failures of the monitored appliances. Further, with the prioritizing based on the first level of analysis, the center need not have the processing capabilities that would otherwise be required to immediately process all of the data from all of the appliances in order to ensure that the system identifies the alarm conditions in a sufficiently timely manner to avoid failures of the appliances.

The two levels of analysis performed by the current system also allows less complex monitoring subsystems to be used to classify the functional data as relating to an alarm, a warning condition or neither of the two conditions. The respective monitoring subsystems perform a level of analysis that involves the functional data obtained, for example, from various sensors, as well as related historical and statistical data maintained by the subsystems. Thus, the respective monitoring subsystems require memory and processing capabilities that are sufficient for just this first level of analysis. Accordingly, the center is the only system component that requires the memory and processing capacity to perform the second more in-depth level of analysis that is based on received functional data as well as functional, historical and statistical data maintained by the center for a given appliance and, as appropriate, for other appliances in the same or other households.

To achieve similar results without the two levels of analysis, either the subsystems must each perform the full analysis – resulting in more complex and expensive subsystems, or the center must be capable of timely scheduling and processing data from various households and the appliances within the households without the benefit of the warning and alarm classifications - requiring greater processing capacity at the center to essentially process the data immediately or risk a failure of one or more of

the appliances because of processing delays that may include data that turns out to signal that alarm conditions have been met.

The cited Johnson and Billington references describe systems that perform operations necessary to produce alarm and, in the case of Billington, alarm and/or warning messages and reports. There is no teaching or suggestion in the references that either system performs a further, more in-depth analysis based on the determination that alarm and/or warning conditions have been met.

More specifically, the Johnson system includes transducers 10, transducer control modules 14 and a monitoring system 20. The transducers provide measurement data signals to the transducer control modules. The transducer control modules combine data, as appropriate, and compare the data to respective user-defined or default thresholds. If one or more of the thresholds are exceeded, the transducer control module sends an "event" message to the monitoring system (Column 13, lines 50 et seq.; Column 14, lines 17 et seq). The monitoring system thereafter decides "whether or not send an alarm" (Column 14, lines 5-6) that is, the monitoring system detects "when the alarm conditions have been met." (Column 15, line 59).

In the Johnson system the alarm conditions are user-defined, with the definitions contained in tables that are maintained by the monitoring system. (Column 18, lines 27-31). Thus, the transducer control module does not classify the event messages in a manner that allows the monitoring system to, for example, set priorities for the handling of the event messages. Rather, the monitoring system must check each of the respective event messages to determine which ones define alarm conditions.

The operations performed by the Johnson system to produce and send an alarm message are analogous to operations that are included in the first level of processing that is performed by the monitoring subsystem of the current invention, to produce the alarm messages that are sent to the center, as set forth in pending claims 41 and 62. There is no teaching or suggestion in the Johnson references that the Johnson system performs a second, more in-depth, level of analysis in response to the determination that the user-defined alarm conditions have been met.

The Billington system is a complex predictive maintenance system for industrial facilities. The Billington system includes a system control computer 10 that collects measurement sensor data from various data acquisition nodes 20 through polling. The system control computer performs a single level of analysis using the data, to determine if alarm or warning conditions have been met. The system produces screens and/or reports that use color coding to display when the alarm or warning conditions are met. A user who is remotely monitoring and overseeing the industrial facilities is thus informed that the alarm or warning conditions met when the user views the on-screen reports.

More specifically, the respective data collection nodes 20 collect data from measurement sensors and, under the control of microprocessors 64, buffer the data until the data is provided to the system control computer 10 through a polling process (Column 4, lines 39-45; Column 11, lines 11-16). The system control computer then analyses the data and provides a report to the user (Column 11, lines 16-18). As discussed, the system may use color coding to point out that alarm or warning conditions have been met (Column 11, lines 46-54).

The Billington system thus performs only one level of analysis to produce the report that indicates alarm and/or warning conditions have been met. There is no teaching or suggestion in Billington of performing a further, more in-depth analysis based on and in accordance with the immediacy associated with the determination that alarm and/or warning conditions have been met. The Billington system, in a manner that is similar to the Johnson system, is set up to allow a user to remotely monitor and/or oversee, in this case, the industrial machines and/or facilities.

A combination of the teachings of Billington to those of Johnson add to the Johnson system a coding of the results of the analysis that indicate to the user that particular user-defined alarm and/or warning conditions have been met. The tables of the Johnson monitoring system that include the user-defined conditions must thus be modified to include user-defined conditions that must be met for warnings.

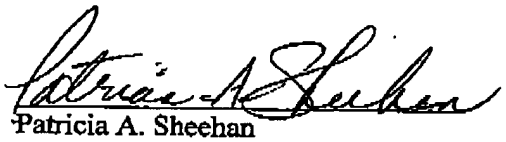
The combination does not teach or suggest the current invention because, *inter alia*, the combination does not teach or suggest a system in which two levels of analysis are performed – a first to determine if alarm and/or warning conditions have been met;

PATENTS
108041-0012

and a second, more in-depth analysis performed in accordance with the immediacy indicated by the classification of the respective messages as alarms or warnings, to determine if other or more actions are required to avoid failure of one or more appliances, as set forth in independent claims 41 and 62 and the claims that depend therefrom.

We respectfully request that the Examiner enter the proposed amendment and issue a Notice of Allowance for all pending claims, as amended. Please charge any additional fee occasioned by this paper to our Deposit Account No. 03-1237.

Respectfully submitted,



Patricia A. Sheehan
Reg. No. 32,301
CESARI AND MCKENNA, LLP
88 Black Falcon Avenue
Boston, MA 02210-2414
(617) 951-2500